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P. Chen

*Zhongkai University of Agriculture and Technology, China*

X. L. Shi

*Zhongkai University of Agriculture and Technology, China*

P. Liu

*Zhongkai University of Agriculture and Technology, China*

Y. L. Zhou

*Zhongkai University of Agriculture and Technology, China*

A. Liu

*Zhongkai University of Agriculture and Technology, China*

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## Green turf quality and evapotranspiration rate in summer of *Agrostis stolonifera* L. cv. Yuexuan No.1 in Guangzhou area

P Chen, X L Shi, P Liu, Y L Zhou, A Liu

Department of Pratacultural science, College of Agriculture and Gardening, Zhongkai University of Agriculture and Technology, Guangzhou, Guangdong 510225, PR China, E-mail: turfchen@163.com

**Key words:** *Agrostis stolonifera* L. cv. Yuexuan No.1 golf green, turf quality, growth speed, evapotranspiration rate

**Introduction** In order to enhance the stability of high temperature and high humidity stress and construct evergreen green in Guangzhou area, we researched traits of *Agrostis stolonifera* L. cv. Yuexuan No.1 and Pennncross. the character of *Agrostis stolonifera* L. cv. Yuexuan No.1 derived from Pennncross was better than that of Pennncross(Chen *et al.*, 2005).

**Materials and methods** Green turf was constructed with *Agrostis stolonifera* Yuexuan No.1 and Pennncross, and pruned to 6mm in 2006. The density, coverage, texture, growth rate, leaf color, leaf senescence index and evapotranspiration rate were measured in summer using the method as described (Chen *et al.*, 2007).

**Results** Green coverage, density, chlorophyll of Yuexuan No.1 were higher than those of Pennncross ( $p < 0.05$ ), and texture was much better than that of Pennncross ( $p < 0.05$ ) (Figure 2). The growth rate of Yuexuan No.1 was much lower than that of Pennncross from January to March. The growth rate of Yuexuan No.1 was much higher than that of Pennncross from June to August ( $p < 0.05$ ) (Figure 1). The leaf senescence index of Yuexuan No.1 was also higher than that of Pennncross ( $p < 0.05$ ). According to Beard's (Beard, 1985) evapotranspiration classification, the evapotranspiration rate of green turf was medium-low. The evapotranspiration rate of Yuexuan No.1 was much lower than that of Pennncross ( $p < 0.05$ ) (Figure 2).

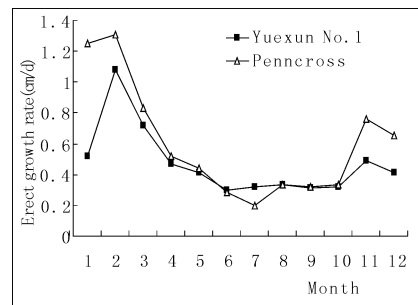


Figure 1 Erect growth rate in golf-green.

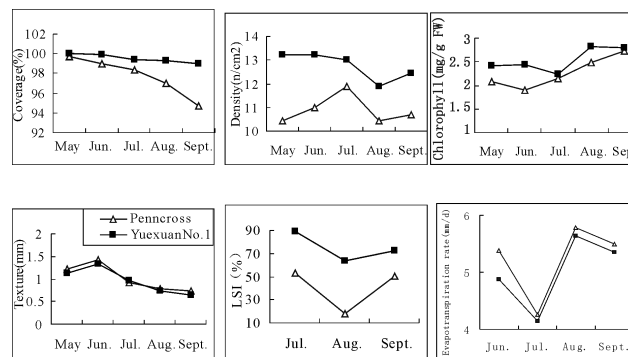


Figure 2 Green coverage, density, texture, leaf color, evapotranspiration rate of Yuexuan No.1 and Pennncross.

**Conclusions** Compared with Pennncross, the assessment on turf quality of Yuexuan No.1 was high and had good color, the evapotranspiration rate was low.

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